

## GROWTH OF LITERATURE ON WOMEN: A STUDY OF SSCI AND A&HCI DURING 2003-2012

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### ABSTRACT

*This study was made as an attempt to discover the growth of literature on women published worldwide, as represented in Social Science Citation Index (SSCI) and Arts and Humanities Citation Index (A&HCI). The study made an effort to identify India's contribution in Women's Literature in the databases under study along with the study of intensification of literature chronologically also outlined the source type of the published literature. Since the women's Studies literature is being published in different bibliographical forms, the present study identified them and also showed the amount of literature being published through all these forms. The data has been gleaned from the Social Science Citation Index (SSCI) and Arts and Humanities Citation Index (A&HCI) covering a 10 year period from 2003-2012. A positive growth in literature on women was found during this period; which was more prominent in SSCI than A&HCI. Maximum contribution from Indian authors found in the year 2012 with 1.128% of total contributions and article was found to be predominant in bibliographical forms of contributions with 78.464% contributions.*

**KEYWORDS:** Literature Growth, Women, Bibliometry, Citation Index.

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### INTRODUCTION

Bibliometrics is an area of study, which aims to quantitatively analyze technical literature. Bibliometric studies are successfully applied to study literature growth of specific subject or to know the contribution of individuals, groups, institutions or countries to a particular kind of literature. This type of studies can be based on index terms, words in the titles of documents, authors, sources or geographical or time distributions. The citation indexes provide a useful base for analyses based on citations.

#### About SSCI and A&HCI

Social Sciences Citation Index (SSCI) is an interdisciplinary citation index product of Thomson Reuters' Healthcare & Science division. It was developed by the Institute for Scientific Information (ISI) from the Science Citation Index. Over 4,500 journals across 50 social science disciplines, as well as 3,500 of the world's leading scientific and technical journals, since 1900 (Thomson Reuters, 2013).

Arts & Humanities Citation Index (A&HCI) provides researchers, administrators, faculty, and students with quick, powerful access to the bibliographic and citation information they need to find research data, analyze trends, journals, and researchers, and share their findings. A&HCI is just one of the multidisciplinary citation databases available within *Web of Science*. It fully covers 1,160 of the world's leading arts and humanities journals. It also indexes individually selected, relevant items from over 6,800 major science and social science journals (Thomson Reuters, 2013).

## OBJECTIVES OF THE STUDY

The study is intended to

- know the growth trend of literature on women
- know the contribution of Indian authors in literature on women
- know the bibliographical form of publications covered by the databases under study and amount of literature published through these sources.

## METHODOLOGY

An empirical method of retrieval was used by topic=(women) to retrieve data related to women. The chronology of the literature was divided in single years for an easier interpretation. Furthermore, the source types are also categorized separately so as to make the study more intensive in terms of development.

## REVIEW OF LITERATURE

The word 'bibliometrics' first appeared in 1969 in the article by Alan Pritchard "Statistical Bibliography or Bibliometrics?" in the Journal of Documentation. Pritchard (1969) described the term as the application of mathematics and statistical methods to books and other media of communication.

The British Standard Glossary of Documentation of Terms (1976) explained the term bibliometrics as the study of documents and patterns of publication in which mathematical and statistical methods have been applied, which is basically the same as Pritchard's original definition.

Sen & Chatterjee (1990) reviews the scientific status of information Science and growth of quantitative studies in library and Information Science leading to studies in bibliometrics. Defines bibliometrics, scientometrics, informetrics and librametrics. Facets of bibliometrics and librametrics have been categorized. Towards the end some studies in the field of bibliometrics is reviewed.

Saraswati et.al (1993) aims to know the growth of literature of tribal linguistics, the authorship pattern, the distributions of publications in different forms and years etc., based on a bibliographical work "Tribal Linguistics in India: a bibliographical survey of international resources". The study shows that most of the publications are with the single authors only and many of the publications of Indian tribal languages are from Dravidian family of language groups.

Cronin et.al (1997) analyses the articles and acknowledgements appeared in three pioneering journals in Women's Studies, Signs, Frontiers and Feminist studies over a period of twenty years. Analyses authors and acknowledgees in terms of gender, also conducts content analysis of all editorial statements published by these three journals and reveals a high level of sole authorship and a preponderance of female over male authors.

The article by Zainab (2008) indicate how the growth and pattern of women studies in Malaysia can be gauged from resources listed in two published bibliographies on 'Women in Development' in Malaysia.

The study made by Wani et.al (2008) provides a detail description of library and information science literature published in various formats. The study also highlights the growth and development of library literature in a chronological order from 1850's to 2000's. The decade of 1980's ranks first with 19.44% publication which is revealed from the study of

Library Information Science and Technology Abstracts (LISTA).

Wani & Gul (2008) highlights the growth in the scholarly literature from different points of view through an analysis of SCOPUS. The analysis provides estimates of the research productivity of different regions of the world. The study shows that Europe leads the world in scientific production and the physical sciences are the dominant disciplines.

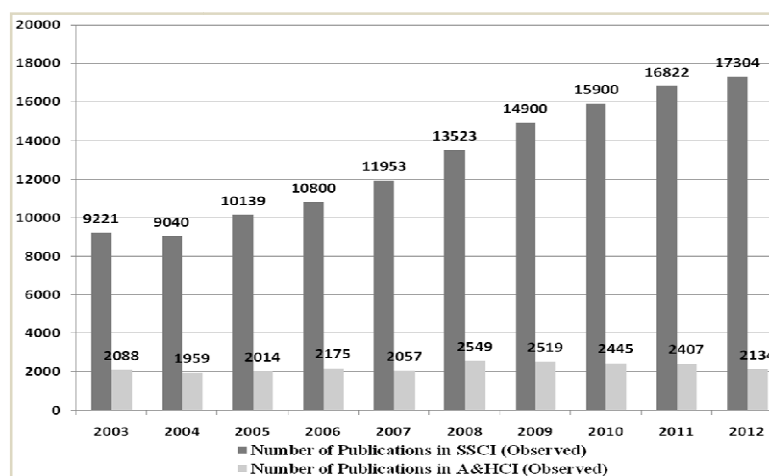
Pradhan et.al (2011) in their study presents the trends in authorship pattern and authors collaborative research in Indian Chemistry literature from SCI-Expanded database during the period 2000-2009. In case of Indian research in Chemistry the study concludes that multiple authorship research are predominant as compared to solo research.

## DATA ANALYSIS

A total of 151949 papers on women were found published during 2003-2012. A year wise distribution of literature on women in SSCI and A&HCI during the period of study is shown in the table1.

**Table 1: Year Wise Distribution of Literature on Women in SSCI and A&HCI**

Years	Number of Publications in SSCI (Observed)	Expected Publication in SSCI	Number of Publications in A&HCI (Observed)	Expected Publication in A&HCI	Total publication in SSCI and A&HCI (Observed)
2003	9221	8327	2088	2038	11309
2004	9040	9356	1959	2081	10999
2005	10139	10386	2014	2125	12153
2006	10800	11416	2175	2169	12975
2007	11953	12445	2057	2213	14010
2008	13523	13475	2549	2257	16072
2009	14900	14505	2519	2300	17419
2010	15900	15534	2445	2344	18345
2011	16822	16564	2407	2388	19229
2012	17304	17594	2134	2432	19438



**Figure 1: Growth of Literature on Women in SSCI and A&HCI**

The Table 1 and Figure 1 clearly indicate a constant growth of published papers on women in SSCI during the period of study. The study of A& HCI shows an average growth of literature on women being maximum in the year 2008 and minimum literature published in 2004.

The Table 2 shows the total trend of growth of literature from both the databases by providing both observed and expected growth of literature in the field. The expected growth of literature is calculated according to the method of least squares. Trend estimation is a statistical technique to aid interpretation of data. When a series of measurements of a process are treated as a time series, trend estimation can be used to make and justify statements about tendencies in the data.

Trend or secular trend in a time series can be measured through—

- Method of free hand or Geographic Method or trend by Inspection.
- Method of Semi-Average
- Method of Moving Averages
- Method of Least Squares.

For this study purpose the method of Least Squares is used.

Under this method (Method of least squares), the trend is determined by fitting a mathematical equation. This method is more accurate and precise and can be used even for forecasting. By this method, either a straight line or a parabolic curve can be obtained from the given data.

The normal equation of straight line is  $Y=a+bt$

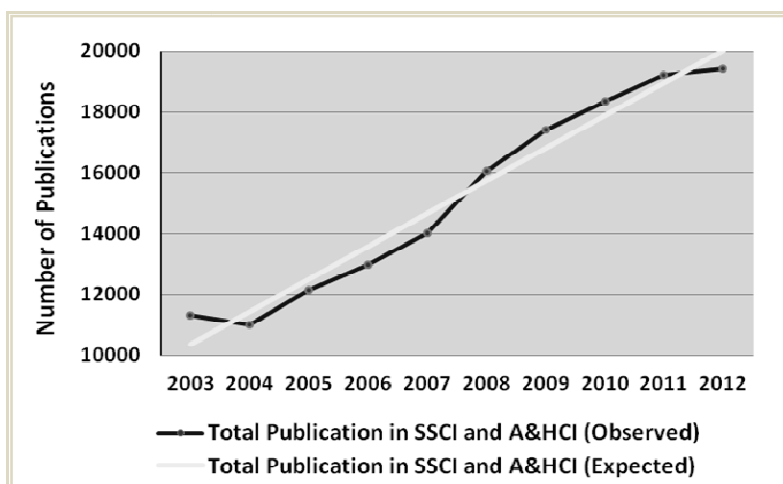
Where,  $t$  is a given set of time and  $Y$  observed value of data,  $a$  and  $b$  are unknown parameters, which are obtained by the normal equations.

$$\Sigma Y = na + b \Sigma t \quad (1)$$

$$\Sigma tY = a \Sigma t + b \Sigma t^2 \quad (2)$$

**Table 2: Observed and Expected total of Publications in SSCI and A&HCI**

Years	Total Publications in SSCI and A&HCI (Observed)	Cumulative Total of Publications	Total Publications in SSCI and A&HCI (Expected)
2003	11309	11309	10365
2004	10999	22308	11437
2005	12153	34461	12511
2006	12975	47436	13585
2007	14010	61446	14658
2008	16072	77518	15732
2009	17419	94937	16805
2010	18345	113282	17878
2011	19229	132511	18952
2012	19438	151949	20026



**Figure2: Observed and Expected Growth of Publications on Women**

### Contribution from India

During the period of study, a total of 151949 publications were found on women. The following table shows that total 0.887% of contributions are from Indian authors during the period of study.

**Table 3: Contribution from India on Literature on Women**

Years	SSCI	A&HCI	Total
2003	72	08	80 (0.707%)
2004	62	07	69 (0.627%)
2005	77	01	78 (0.641%)
2006	112	10	122 (0.940%)
2007	106	04	110 (0.785%)
2008	124	03	127 (0.790%)
2009	164	05	169 (0.097%)
2010	188	08	196 (1.068%)
2011	173	08	181 (0.941%)
2012	207	10	217 (1.128%)
<b>Total</b>	<b>1285</b>	<b>64</b>	<b>1349 (0.887%)</b>

The Table 3 shows that in the year 2009, contribution from Indian authors is the least, which is 0.097% and the contribution is maximum in the year 2012 with 1.128%. The following figure reflects the growth in India's contribution clearly.

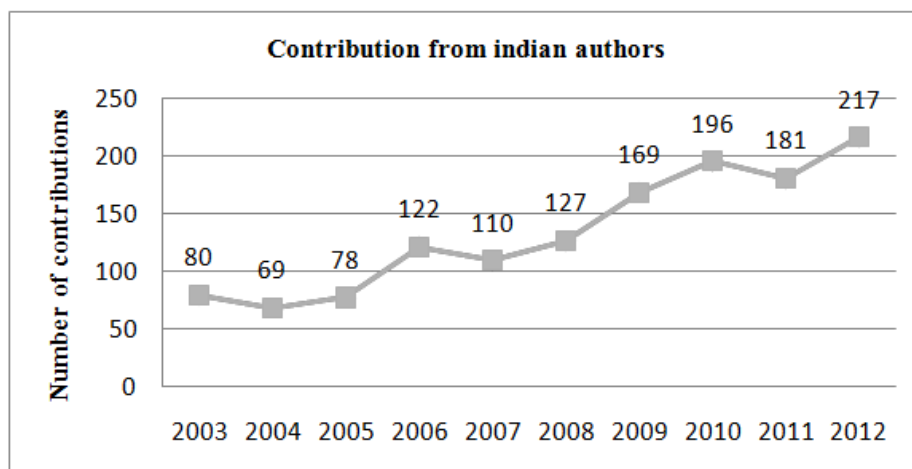


Figure 3: Contribution from India on Literature on Women

### Bibliographical Form of Publications

The various bibliographical forms, in which the publications on women are available in the indexes under study, are shown in the following table.

Table 4: Bibliographical Form of Publications

Years	Databases	Type of document										Total
		Art	Total	Pr	Total	Ed	Total	BR	Total	Others	Total	
2003	SSCI	7441	8237	576	616	190	215	803	1935	211	306	11309
	A&HCI	796	(72.836%)	40	(5.447%)	25	(1.901%)	1132	(17.110%)	95	(2.706%)	(100%)
2004	SSCI	7182	7935	618	665	207	241	691	1751	342	407	10999
	A&HCI	753	(72.143%)	47	(6.046%)	34	(2.191%)	1060	(15.920%)	65	(3.700%)	(100%)
2005	SSCI	8253	8988	668	749	255	281	702	1794	261	341	12153
	A&HCI	735	(73.957%)	81	(6.163%)	26	(2.312%)	1092	(14.762%)	80	(2.806%)	(100%)
2006	SSCI	9032	9917	600	695	250	290	641	1750	277	323	12975
	A&HCI	885	(76.432%)	95	(5.356%)	40	(2.235%)	1109	(13.488%)	46	(2.489%)	(100%)
2007	SSCI	10005	10888	642	739	272	308	610	1601	424	474	14010
	A&HCI	883	(77.716%)	97	(5.275%)	36	(2.198%)	991	(11.428%)	50	(3.383%)	(100%)
2008	SSCI	11236	12404	582	647	269	319	769	1928	667	774	16072
	A&HCI	1168	(77.178%)	65	(4.026%)	50	(1.985%)	1159	(11.996%)	107	(4.815%)	(100%)
2009	SSCI	12819	14018	457	524	345	399	690	1795	589	683	17419
	A&HCI	1199	(80.475%)	67	(3.008%)	54	(2.291%)	1105	(10.305%)	94	(3.921)	(100%)
2010	SSCI	13601	14867	153	168	342	388	772	1798	1032	1124	18345
	A&HCI	1266	(81.041%)	15	(0.916)	46	(2.115%)	1026	(9.801%)	92	(6.127%)	(100%)
2011	SSCI	14457	15769	70	73	360	399	692	1656	1243	1332	19229
	A&HCI	1312	(82.006%)	03	(0.380%)	39	(2.075%)	964	(8.612%)	89	(6.927%)	(100%)
2012	SSCI	14939	16202	58	59	290	328	615	1393	1402	1456	19438
	A&HCI	1263	(83.352%)	01	(0.304%)	38	(1.687%)	778	(7.166%)	54	(7.491%)	(100%)
Total		119225	(78.464%)	4935	(3.248%)	3168	(2.085%)	17401	(11.452%)	7220	(4.751%)	151949

(Art-Article, Pr-Proceeding Paper, Ed-Editorial Material, BR-Book Review)

A total of 151949 publications in SSCI and A&HCI reflect various forms of literary output on women like articles book reviews, conference proceedings, editorial materials etc. Out of these, 119225(78.464%) articles, 4935(3.248%) Proceeding Paper, 3168(2.085%) editorial materials, 17401(11.452%) book reviews and 7220(4.751%) other materials. Maximum numbers of articles are recorded in the year 2012 with 83.352% of articles and maximum numbers of book

reviews are covered in the year 2003 with 17.110% and minimum in the year 2012 with 7.166% of book reviews, which shows a decreasing trend of coverage of book reviews in the last ten years. It is seen than articles cover major part of the database and book reviews also form a significant portion. Other materials cover chapters of books, discussions, bibliographies, biographical items etc. Figure 4 clearly indicates the percentage of type of publications for a clearer vision.

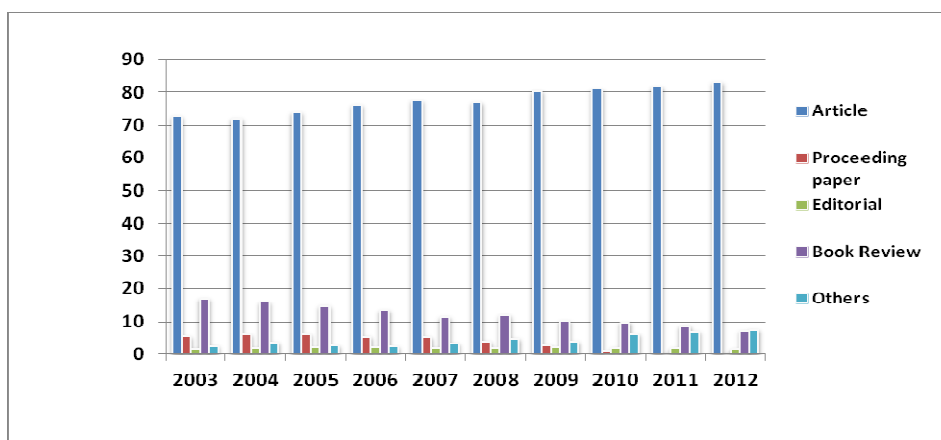


Figure 4: Bibliographical form of Publications on Women

## FINDINGS AND CONCLUSIONS

The study shows a positive growth in literature on women, the growth is more prominent in Social Science Citation Index than Arts and Humanities Citation Index. The contribution of authors from India is not encouraging. Maximum contribution is seen in the year 2012, with 1.128% of total literature on women covered in the year, by both the indexes. Articles cover a major portion in bibliographical form of publications with 78.464% of total publications followed by Book Reviews with 11.452% of contributions found during the period of study. The study shows an increasing trend of Article coverage and decreasing trend in the coverage of Book Reviews.

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